Paper ID: 28269
poster

MATERIALS AND STRUCTURES SYMPOSIUM (C2)
Interactive Presentations (IP)

Author: Mr. zhou fang
China Academy of Launch Vehicle Technology(CALT), China

THE INFLUENCE FACTOR OF THE DISPERSIBILITY OF CARBON NANO TUBE IN EPOXY RESIN

Abstract

Carbon nano tube (CNT) is a promising reinforcing material in epoxy resin, because of its unique mechanical properties. CNTs aggregate easily due to their nano-properties, so it is important to disperse CNTs in epoxy resin uniformly when producing CNTs reinforced epoxy resin composite. Twin rotor mixer was used to disperse different amount of CNTs in epoxy resin with various parameters of revolutions per minute (rpm), duration and mixing temperature. Transmission electron microscope (TEM) was used to observe the dispersion results. It indicated that higher rpm and longer duration resulted in better dispersion, while the mixing temperature effected a little. Mixing 0.5 wt.